

HIGH-SPEED LOW-DISTORTION ANALOG-TO-DIGITAL CONVERTER

ABSTRACT

An analog to digital converter includes an array of differential input amplifiers. Each amplifier inputs an input voltage and a corresponding voltage reference, and outputs a differential signal representing a comparison of the input voltage and the corresponding voltage reference. A plurality of latches stores the differential signal from each of the differential input amplifiers. A decoder converts the stored differential signals to N-bit digital output. A first interface amplifier is connected to a first edge amplifier of the array through a first cross point. A second interface amplifier is connected to a second edge amplifier of the array through a second cross point. The first interface amplifier and the second interface amplifier are connected to each other through a third cross point.